

**REMARKS**

This paper is filed in response to the Office Action mailed December 10, 2007.

Following the amendments above, claims 12-15, 17-23, 25, 36-40, 42-43, 58-70, 72-76, 78-82, 92-96, and 98-112, 114-116, and 120-121 are pending.

Claims 122-147 are rejected under a statutory-type double-patenting rejection under 35 U.S.C. § 101 as being the same as claims 44-69 of Application No. 10/615,927.

Claims 12, 13, 17-21, 36-40, 75, 102-104, 106, 109-111, 113, and 120-121 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,299,810 to Pierce et al (hereinafter referred to as "Pierce").

Claim 22 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of the knowledge of one of ordinary skill in the art. Claims 23, 42, 43, 58-70, 72-74, 76, 78-82, 108, and 114-116 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita. Claims 14-15, 25, 105, and 107 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of an article entitled "A Low-Cost Force Feedback Joystick and its Use in PC Video Games" authored by Ming Ouhyoung et al, and published in the IEEE Transactions on Consumer Electronics, Vol. 41, No. 3, Aug. 1995 (hereinafter referred to as "Ouhyoung") and an article entitled "MagicMouse: Tactile and Kinesthetic Feedback in the Human-Computer Interface using an Electromagnetically Actuated Input/Output Device" authored by Kelley et al (hereinafter referred to as "Kelley"). Claims 92-96, and 98-101 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Pierce and Yamakita, and further in view of Ouhyoung and Kelley.

Applicant has cancelled claims 122-147. Applicant has amended claims 12, 17, 38, 58, 75, 76, 79, 101, 102, 103, 105, 120, and 121. No new matter is added by these amendments, and support for the amendments may be found in the specification and claims as originally filed.

Reconsideration and allowance of all claims are respectfully requested in view of the amendments above and the remarks below.

Claims 122-147 - § 101, double patenting

Applicant respectfully traverses the provisional rejection of claims 122-147 under 35 U.S.C. § 101, second paragraph, for claiming the same invention of claims 44-69 of co-pending Application No. 10/615,927. Claims 122-147 have been cancelled. Applicant respectfully requests the withdrawal of the rejection of claims 122-147.

Claims 12, 13, 17-21, 36-40, 75, 102-104, 106, 109-111, 113, 120-127, 130, and 143-146 -  
§ 102(b) - Pierce

Applicant respectfully traverses the rejection of claims 12, 13, 17-21, 36-40, 75, 102-104, 106, 109-113, 117, and 118 under 35 U.S.C. § 102(b) as being anticipated by Pierce.

Applicant has canceled claims 122-127, 130, and 143-146, rendering their rejection moot. Applicant respectfully requests that the rejection of claims 122-127, 130, and 143-146 be withdrawn.

To anticipate a claim under 35 U.S.C. § 102(b), a reference must disclose each and every element of the claim. *See* M.P.E.P. § 2131.

Because Pierce does not disclose:

- “said second computer means remote from said first computer means” as recited in claim 12,
- “said first computer is remote from said second computer,” as recited in claims 17, 38, 102, and 103,
- “receiving a first information from a remote computer over a network,” as recited in claim 75, or
- “receive a first information from a remote processor over a network,” as recited in claims 120 and 121,

Pierce does not anticipate claims 12, 17, 38, 75, 102, 103, 120, and 121.

Pierce discloses computers which poll a shared memory for updates: “Once each computational cycle, each computer sends its position signals to a common random access memory (RAM) which is electrically connected to each computer. After sending its position signals to the RAM, each computer polls the RAM to determine the positions and orientations of

the vehicle and drones controlled by the opposite computer.” Pierce, columns 2-3, lines 65-69, 1-3. Polling a local RAM is not the same as receiving information from a remote computer.

As one example of the contrast between a direct, electrical connection such as the one in Pierce, and a connection with a “remote computer” such as in claim 17, the device in the current application may be “subject to some transmission (“latency”) delays on networks such as the Internet, but permits remote interactivity.” See current application, paragraph 15. Pierce, however, does not teach that reading and writing to a common RAM would be possible over a remote connection, particularly with any network delays.

Because reading and writing to a local RAM every computational cycle is not the same as “receiving a first information from a remote computer,” Pierce does not disclose every element recited in claims 12, 17, 38, 75, 102, 103, 120, and 121. Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claims 12, 17, 38, 75, 102, 103, 120, and 121.

Because claims 13, 18-21, 36-37, 104, 106, 109-111, and 113 depend from and further limit claims 12, 17, 38, 75, 102, 103, 120, and 121, claims 13, 18-21, 36-37, 104, 106, 109-111, and 113 are not anticipated by Pierce for at least the same reasons. Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claims 13, 18-21, 36-37, 104, 106, 109-111, and 113.

Claim 22 - 35 U.S.C. § 103(a) Pierce in view of  
The knowledge of one of ordinary skill in the art

Applicant respectfully traverses the rejection of claims 22 and 119 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of the knowledge of one of ordinary skill in the art.

To establish a prima facie case of obviousness under 35 U.S.C. § 103(a), the combined reference must teach or suggest each and every element of the claimed invention. See M.P.E.P. § 2143.03. Further, “[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” MPEP 2143.01 (citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

Because Pierce does not teach or suggest “said first computer is remote from said second computer,” as recited in claim 17, from which claim 22 depends from and further limits, claim 17 is patentable over Pierce and in view of one of ordinary skill in the art. As noted above, Pierce does not teach or suggest “receiving information from a remote computer” as recited in claim 17. Because Pierce teaches a local, electrically connected device, one of ordinary skill in the art would not be motivated to combine the device of Pierce with a remote computer.

Furthermore, modifying the Pierce device to communicate with a remote computer over a network would fundamentally alter the mode of operation of the device, and thus, one of ordinary skill in the art would not be motivated to modify the Pierce device to receive information at a network interface. Therefore, claim 17 is patentable over the combination of Pierce and the knowledge of one of ordinary skill in the art.

Because claim 22 depends from and further limits claim 17, claim 22 is patentable over the combination of Pierce and the knowledge of one of ordinary skill in the art for at least the same reason as claim 17. Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claim 22.

Claims 23, 42, 43, 58-70, 72-74, 76, 78-82, 108, 114-116 – § 103(a) – Pierce in view of  
Yamakita

Applicant respectfully traverses the rejection of claims 23, 42-43, 58-70, 72-74, 76, 78-82, 108, and 114-116 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita.

To establish a prima facie case of obviousness under 35 U.S.C. § 103(a), the combined reference must teach or suggest each and every element of the claimed invention. *See* M.P.E.P. § 2143.03. Further, “[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” MPEP 2143.01 (citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

Because one of ordinary skill in the art would not be motivated to modify Pierce to incorporate the device of Yamakita, claims 17, 38, 58, and 75, and 103, from which claims 23, 28, 29, 31, 42-43, 59-70, 72-74, 76, and 78-82, 108, and 114-116 depend, are patentable over

Yamakita. As noted above, Pierce does not teach or suggest “receiving information from a remote computer” as recited in claims 17, 27, 38, 58, 75, and 103. Yamakita, however, suggests communication with a remote computer.

Modifying the Pierce device to include communication with a remote computer fundamentally alters the mode of operation of the Pierce device. The device of Pierce is a vehicle simulator with tandem surfaces for a first and second user. *See Pierce*, Abstract. The vehicle simulator attempts to “provide multi-sensory indications of events that are initiated by another operator” (i.e. the other user). *See Pierce*, Abstract, column 1, lines 61-63. In order to detect events initiated by another operator, the computers in Pierce poll a common RAM, which each computer is electrically connected to. *See Pierce*, column 2, lines 65-68. Specifically, Pierce teaches that “once each computational cycle, each computer sends its position signals to a common random access memory (RAM) which is electrically connected to each computer.” *See Pierce*, column 2, lines 65-68. Because the computers of Pierce are electrically connected, they must be located together, in one location.

Pierce offers no teaching, suggestion, or motivation to update each computer’s position signals in any other fashion. On the contrary, locating each computer in a remote location could introduce network delays which would destroy the mode of operation of the Pierce device. In contrast to polling a local RAM every computational cycle, transmitting and receiving information from a remote computer “may be subject to some transmission (“latency”) delays on networks such as the Internet.” *Current Application*, Paragraph 15. Pierce, however, does not teach or suggest updating position signals which may be subject to delays uncommon to a direct, local electrical connection. Such delays, which are foreseeable over a remote connection, would destroy Pierce’s ability to provide indications of events initiated by another computer. Thus, there is no suggestion, motivation, or teaching in Pierce to allow users to interact over any distance beyond the limitations of direct electrical communication, which is required by the invention of Pierce. *See Pierce*, column 2, lines 65-68.

Modifying the Pierce device to communicate with a remote computer over a network would fundamentally alter the mode of operation of the device, and thus, one of ordinary skill in the art would not be motivated to modify the Pierce device to receive information at a network interface. Therefore, claims 17, 27, 38, 58, 75, and 103 are patentable over the combination of Pierce and Yamakita.

Because claims 23, 42-43, 58-70, 72-74, 76, 78-82, 108, and 114-116 depend from and further limit claims 17, 27, 38, 58, 75, and 103, claims 23, 42-43, 58-70, 72-74, 76, 78-82, 108, and 114-116 are patentable over the combination of Pierce in view of Yamakita for at least the same reason as claims 17, 27, 38, 58, 75, and 103. Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claims 23, 42-43, 58-70, 72-74, 76, 78-82, 108, and 114-116.

Claim 128 – § 103(a) – Pierce in Thatcher

Applicant has canceled claim 128, rendering its rejection moot. Applicant respectfully requests the Examiner withdraw the objection to claim 128.

Claims 14-15, 25, 105, 107, 129, 131-142, 147 – § 103(a) – Pierce in view of Ouhyoung and Kelley

Applicant respectfully traverses the rejection of claims 14-15, 25, 105, 107, 129, 131-142, 147 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita.

Applicant has cancelled claims 129, 131-142, and 147, rendering their rejection moot. Applicant respectfully requests the Examiner withdraw the objections to claims 129, 131-142, and 147.

To establish a prima facie case of obviousness under 35 U.S.C. § 103(a), the combined reference must teach or suggest each and every element of the claimed invention. *See* M.P.E.P. § 2143.03. Further, "[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." MPEP 2143.01 (citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

Because one of ordinary skill in the art would not be motivated to modify Pierce to incorporate the device of Yamakita, claims 12, 17, and 103, from which claims 14-15, 25, 105, and 107 depend, are patentable over Ouhyoung and Kelley. As noted above, Pierce does not teach or suggest "receiving information from a remote computer" as recited in claims 12, 17, and 103. Ouhyoung and Kelley, however, suggest communication with a remote computer.

As discussed above, modifying the Pierce device to communicate with a remote computer over a network would fundamentally alter the mode of operation of the device, and

thus, one of ordinary skill in the art would not be motivated to modify the Pierce device to receive information at a network interface. Therefore, claims 12, 17, and 103 are patentable over the combination of Pierce and Yamakita.

Because claims 14-15, 25, 105, and 107 depend from and further limit claims 12, 17, and 103, claims 14-15, 25, 105, and 107 are patentable over the combination of Pierce in view of Yamakita for at least the same reason as claims 12, 17, and 103. Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claims 14-15, 25, 105, and 107.

Claims 92-96, 98-101 – § 103(a) – Pierce and Yamakita in view of Ouhyoung and Kelley

Applicant respectfully traverses the rejection of claims 92-96, 98-101 under 35 U.S.C. § 103(a) as being unpatentable over Pierce in view of Yamakita.

To establish a prima facie case of obviousness under 35 U.S.C. § 103(a), the combined reference must teach or suggest each and every element of the claimed invention. *See* M.P.E.P. § 2143.03. Further, "[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." MPEP 2143.01 (citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

Because one of ordinary skill in the art would not be motivated to modify Pierce to incorporate the device of Yamakita, claims 101, from which claims 92-96 and 98-100 depend, are patentable over Ouhyoung and Kelley. As noted above, Pierce does not teach or suggest "a second computer in communication with said first computer over said network, said second computer remote from said first computer" as recited in claim 101. Yamakita, Ouhyoung and Kelley, however, suggest communication with a remote computer.

As discussed above, modifying the Pierce device to communicate with a remote computer over a network would fundamentally alter the mode of operation of the device, and thus, one of ordinary skill in the art would not be motivated to modify the Pierce device to receive information at a network interface. Therefore, claim 101 is patentable over the combination of Pierce and Yamakita and further in view of Ouhyoung and Kelley.

Because claims 92-96 and 98-100 depend from and further limit claim 101, claims 92-96 and 98-100 are patentable over the combination of Pierce in view of Yamakita for at least the same reason as claim 101. Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claims 92-96 and 98-101.

**CONCLUSION**

Applicant respectfully asserts that all pending claims are allowable and Applicant respectfully requests the allowance of all claims.

Should the Examiner have any comments, questions, or suggestions of a nature necessary to expedite the prosecution of the application, or to place the case in condition for allowance, the Examiner is courteously requested to telephone the undersigned at the number listed below.

Respectfully submitted,

Date:

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